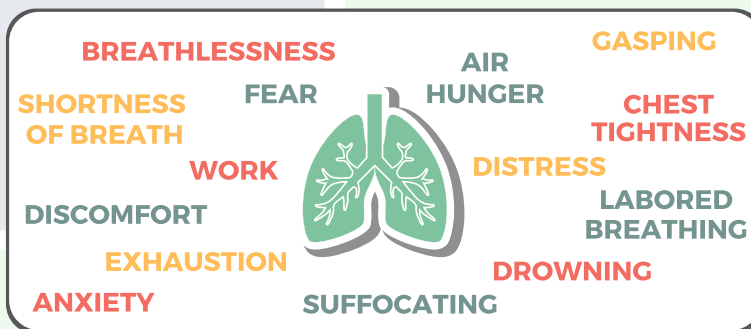


DYSPNEA DURING COVID-19

- Usually starts between day 4 and 8 of illness, although also reported later in course
- Can occur without productive cough
- Usually associated with pneumonia, ARDS, decreased lung compliance
- Approximately 30% of people hospitalized with COVID-19 experience dyspnea
- In a study of 101 inpatients with COVID-19 referred to palliative care, 66% experienced dyspnea
- Worse with exertion, even speaking on the phone
- May see very low blood oxygen saturation (low 80%) without dyspnea (called silent hypoxia)
- Assessment is based upon self-report; some can rate using 0-10 scale (0=no breathlessness, 10=severe breathlessness)
- Don't forget other causes of dyspnea, especially in people with comorbid serious illness:
 - Advanced AIDS, anemia, asthma, cancer, CHF, COPD, heart failure, pulmonary embolism, anxiety/panic attack
- Nursing assessment, including history and physical exam, can help differentiate possible contribution of these comorbidities



PHARMACOLOGIC PALLIATIVE MANAGEMENT: OPIOIDS

Opioids are the foundation for management of dyspnea for palliative care

- Initial doses for opioid naïve patients:
 - Morphine PO 5mg every 3-4 hours prn (2.5 mg for fragile or older adults)
 - Morphine IV 1-2 mg every 1 hour prn
 - Oxycodone PO 2.5-5 mg every 3-4 hours prn
 - Hydromorphone PO 1-2 mg every 3-4 hours prn
 - Hydromorphone IV 0.2-0.4 mg every 1 hour prn
- Titrate upward by 25-50% if dyspnea unrelieved
- Increase frequency if dose provides relief but is not sustained
 - Every hour for oral administration
 - Every 15 minutes for IV administration
- For patients tolerant to opioids, higher doses may be needed – use equianalgesic table to calculate current 24 hour dose and administer 10-20%; increase gradually



Routes – helpful tips:

- Oral concentrated liquid (such as morphine or oxycodone) may be useful when dyspnea is severe and swallowing tablets difficult; onset of effect similar to oral tablets
- Intravenous or subcutaneous opioid administration may be used during episodes of severe dyspnea requiring faster onset and more rapid titration, or if patient unable to swallow

DRUG	IV/SQ	ORAL
Fentanyl IV	0.1mg=100mcg	NA
Hydrocodone/Acetaminophen	NA	30
Hydromorphone	1.5	7.5
Morphine	10	30
Oxycodone	NA	20
Tramadol	NA	120

PHARMACOLOGIC MANAGEMENT: OTHER AGENTS

- Treat underlying cause: antivirals, antibiotics, anticoagulants for PE, diuretics if fluid overload, bronchodilators if bronchospasm
 - Caution – bronchodilators can elevate heart rate and a sense of anxiety or agitation
- Although the urge to give benzodiazepines is strong, these treat only anxiety and may contribute to excess sedation – use only if anxiety is present and opioids have been adequately titrated
 - Lorazepam is recommended due to its relatively short half-life and its availability in liquid form. Dosage: 0.25 mg PO/SL q 4 hours.



NONPHARMACOLOGIC MANAGEMENT

- Distraction/music/calming environment
- Education
- Oxygen – use only with hypoxia – target is SpO₂ of ≥ 90%
- Positioning – upright, bracing forward for symptom control (prone position used in hospital/ICU)
- Pursed lip or abdominal breathing
- Relaxation/mindfulness *
- Spiritual care



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- Lovell N, Maddocks M, Etkind SN, et al. Characteristics, symptom management and outcomes of 101 patients with COVID-19 referred for hospital palliative care. J Pain Symptom Manage 2020 <https://doi.org/10.1016/j.jpainsymman.2020.04.015>
- NIH COVID-19 Treatment Guidelines <https://covid19treatmentguidelines.nih.gov/concomitant-medications/>

DON'T FORGET TO SEEK SUPPORT FROM OTHER TEAM MEMBERS, INCLUDING:

- Chaplains
- Music/art therapists
- Physicians
- Psychologists
- Respiratory therapists
- Social workers

*See aacnnursing.org/ELNEC/COVID-19 for a list of apps and other resources to assist with meditation, mindfulness, distraction and relaxation techniques